

## SEQUENCE LISTING

&lt;110&gt; Evolutionary Genomics LLC

<120> Development of Therapeutics for the Treatment of  
Endotoxin-Mediated Diseases

&lt;130&gt; GENO200.3.1

&lt;150&gt; 10/100,422

&lt;151&gt; 2002-03-18

&lt;160&gt; 40

&lt;170&gt; PatentIn version 3.2

&lt;210&gt; 1

&lt;211&gt; 2427

&lt;212&gt; DNA

&lt;213&gt; Pan troglodytes

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Asn Pro Leu Arg His Leu Gly Ser Tyr Ser Phe Phe Ser Phe Pro Glu	35	40	45	
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Gly Ala Tyr Gln Ser Leu Ser His Leu Ser Thr Leu Ile Leu Thr Gly	65	70	75	80
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Asn Pro Ile Gln Ser Leu Ala Leu Gly Ala Phe Ser Gly Leu Ser Ser	85	90	95	
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Asn Pro Ile Gln Ser Leu Ala Leu Gly Ala Phe Ser Gly Leu Ser Ser
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Lys Glu Ile Arg Leu His Lys Leu Thr Leu Arg Asn Asn Phe Asp Ser  
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gaa tgt gca aca cct tca gat aag cag ggc atg cct gtg ctg agt ttg Glu Cys Ala Thr Pro Ser Asp Lys Gln Gly Met Pro Val Leu Ser Leu 580 585 590	1776
aat atc acc tgt cag atg aat aag acc atc att ggt gtg tca gtc ctc Asn Ile Thr Cys Gln Met Asn Lys Thr Ile Ile Gly Val Ser Val Leu 595 600 605	1824
agt gtg ctt gta gta tct gtt gta gca gtt ctg gtc tat aag ttc tat Ser Val Leu Val Val Ser Val Val Ala Val Leu Val Tyr Lys Phe Tyr 610 615 620	1872
ttt cac ctg atg ctt ctt gct ggc tgc atg aag tat ggt aga ggt gaa Phe His Leu Met Leu Leu Ala Gly Cys Met Lys Tyr Gly Arg Gly Glu 625 630 635 640	1920
aac acc tat gat gcc ttt gtt atc tac tcc agc cag gat gag gac tgg Asn Thr Tyr Asp Ala Phe Val Ile Tyr Ser Ser Gln Asp Glu Asp Trp 645 650 655	1968
gta agg aat gag cta gta aag aat tta gaa gaa ggg gtg cct ccc ttt Val Arg Asn Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Pro Phe 660 665 670	2016

cag ctc tgc ctt cac tac aga gac ttt att ccy ggt gtg gcc att gct	2064
Gln Leu Cys Leu His Tyr Arg Asp Phe Ile Xaa Gly Val Ala Ile Ala	
675 680 685	
gcc aac atc atc cat gaa ggt ttc cat aaa agc cga aag gtg att gtt	2112
Ala Asn Ile Ile His Glu Gly Phe His Lys Ser Arg Lys Val Ile Val	
690 695 700	
gtg gtg tcc cag cac ttc atc cag agc cgc tgg tgt atc ttt gag tat	2160
Val Val Ser Gln His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr	
705 710 715 720	
gag att gct cag acc tgg cag ttt ctg agc agt cat gct ggg atc atc	2208
Glu Ile Ala Gln Thr Trp Gln Phe Leu Ser Ser His Ala Gly Ile Ile	
725 730 735	
ttc att gtc ctg cag aag gtg gag aag acc ctg ctc agg cag cag gtg	2256
Phe Ile Val Leu Gln Lys Val Glu Lys Thr Leu Leu Arg Gln Gln Val	
740 745 750	
gag ctg tac cgc ctt ctc agc agg aac act tac ctg gag tgg gag gat	2304
Glu Leu Tyr Arg Leu Leu Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp	
755 760 765	
agt gtc ctg ggg cgg cac att ttc tgg aga cga ctc aga aaa gcc ctg	2352
Ser Val Leu Gly Arg His Ile Phe Trp Arg Arg Leu Arg Lys Ala Leu	
770 775 780	
ctg gat ggt aaa tca tgg aat cca gaa gga aca gtg ggt aca gga tgc	2400
Leu Asp Gly Lys Ser Trp Asn Pro Glu Gly Thr Val Gly Thr Gly Cys	
785 790 795 800	
aat tag	2406
Asn	

&lt;210&gt; 9

&lt;211&gt; 801

&lt;212&gt; PRT

&lt;213&gt; Hylobates lar

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (198)..(198)

&lt;223&gt; The 'Xaa' at location 198 stands for Arg, or His.

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (683)..(683)

&lt;223&gt; The 'Xaa' at location 683 stands for Pro.

&lt;400&gt; 9

Val Val Pro Asn Ile Thr Tyr Gln Cys Met Glu Leu Asn Phe Tyr Lys
1 5 10 15

Ile Pro Asp Asn Leu Pro Phe Ser Thr Lys Asn Leu Asp Leu Ser Phe  
 20 25 30

Asn Pro Leu Arg His Leu Gly Ser Tyr Ser Phe Phe Ser Phe Pro Glu  
 35 40 45

Leu Gln Val Leu Asp Leu Ser Arg Cys Glu Ile Gln Thr Ile Glu Asp  
 50 55 60

Gly Ala Tyr Gln Ser Leu Ser Leu Leu Ser Thr Leu Ile Leu Thr Gly  
 65 70 75 80

Asn Pro Ile Gln Ser Leu Ala Leu Gly Ala Phe Ser Gly Leu Ser Ser  
 85 90 95

Leu Gln Lys Leu Val Ala Val Glu Thr Asn Leu Ala Ser Leu Glu Asn  
 100 105 110

Phe Pro Ile Gly His Leu Lys Thr Leu Lys Glu Leu Asn Val Ala His  
 115 120 125

Asn Leu Ile Gln Ser Phe Lys Leu Pro Glu Tyr Phe Ser Asn Leu Thr  
 130 135 140

Asn Leu Glu His Leu Asp Leu Ser Ser Asn Lys Ile Gln Ser Ile Tyr  
 145 150 155 160

Cys Lys Asp Leu Gln Val Leu His Gln Met Pro Leu Leu Asn Leu Ser  
 165 170 175

Leu Asp Leu Ser Leu Asn Pro Met Asn Phe Ile Gln Pro Gly Ala Phe  
 180 185 190

Lys Glu Ile Ser Leu Xaa Lys Leu Thr Leu Arg Asn Asn Phe Asp Ser  
 195 200 205

Leu Asn Val Met Lys Thr Cys Ile Gln Gly Leu Ala Gly Leu Glu Val  
 210 215 220

His Arg Leu Val Leu Gly Glu Phe Arg Asn Glu Gly Asn Leu Glu Glu  
 225 230 235 240

Phe Asp Lys Ser Ala Leu Glu Gly Leu Cys Asn Leu Thr Ile Glu Glu  
 245 250 255



Phe Arg Leu Ala Tyr Leu Asp His Tyr Leu Asp Asp Ile Ile Asp Leu  
 260 265 270

Phe Asn Cys Leu Ala Asn Val Ser Ser Phe Ser Leu Val Ser Val Thr  
 275 280 285

Ile Lys Arg Val Glu Asp Phe Ser Tyr Asn Phe Gly Trp Gln His Leu  
 290 295 300

Glu Leu Val Asn Cys Lys Phe Gly Gln Phe Pro Thr Leu Asn Leu Lys  
 305 310 315 320

Ser Leu Lys Arg Leu Thr Phe Thr Ala Asn Arg Gly Gly Asn Ala Phe  
 325 330 335

Ser Glu Val Asp Leu Pro Ser Leu Glu Phe Leu Asp Leu Ser Arg Asn  
 340 345 350

Gly Leu Ser Phe Lys Gly Cys Cys Ser Gln Ser Asp Phe Gly Thr Asn  
 355 360 365

Ser Leu Lys Tyr Leu Asp Leu Ser Phe Asn Asp Val Ile Thr Met Ser  
 370 375 380

Ser Asn Phe Leu Gly Leu Glu Gln Leu Glu His Leu Asp Leu Gln His  
 385 390 395 400

Ser Asn Leu Lys Gln Met Ser Glu Phe Ser Val Phe Leu Ser Leu Arg  
 405 410 415

Asn Leu Ile Tyr Leu Asp Ile Ser His Thr His Thr Arg Val Ala Phe  
 420 425 430

Asn Gly Ile Phe Asn Gly Leu Ser Asn Leu Glu Val Leu Lys Met Ala  
 435 440 445

Gly Asn Ser Phe Gln Glu Asn Phe Leu Pro Asp Ile Phe Thr Glu Leu  
 450 455 460

Arg Asn Leu Thr Phe Leu Asp Leu Ser Gln Cys Gln Leu Glu Gln Leu  
 465 470 475 480

Ser Pro Thr Ala Phe Asn Ser Leu Ser Ser Leu Gln Val Leu Asn Met  
 485 490 495

Ser His Asn Asn Phe Phe Ser Leu Asp Thr Phe Pro Tyr Lys Cys Leu  
 500 505 510

Asn Ser Leu Gln Val Leu Asp Tyr Ser Leu Asn His Ile Met Thr Ser  
 515 520 525

Lys Lys Gln Glu Leu Gln Arg Phe Pro Ser Ser Leu Ala Phe Leu Asn  
 530 535 540

Leu Thr Gln Asn Asp Phe Ala Cys Thr Cys Glu His Glu Ser Phe Leu  
 545 550 555 560

Gln Trp Ile Lys Asp Gln Arg Gln Leu Leu Val Glu Val Glu Arg Met  
 565 570 575

Glu Cys Ala Thr Pro Ser Asp Lys Gln Gly Met Pro Val Leu Ser Leu  
 580 585 590

Asn Ile Thr Cys Gln Met Asn Lys Thr Ile Ile Gly Val Ser Val Leu  
 595 600 605

Ser Val Leu Val Val Ser Val Val Ala Val Leu Val Tyr Lys Phe Tyr  
 610 615 620

Phe His Leu Met Leu Leu Ala Gly Cys Met Lys Tyr Gly Arg Gly Glu  
 625 630 635 640

Asn Thr Tyr Asp Ala Phe Val Ile Tyr Ser Ser Gln Asp Glu Asp Trp  
 645 650 655

Val Arg Asn Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Pro Phe  
 660 665 670

Gln Leu Cys Leu His Tyr Arg Asp Phe Ile Xaa Gly Val Ala Ile Ala  
 675 680 685

Ala Asn Ile Ile His Glu Gly Phe His Lys Ser Arg Lys Val Ile Val  
 690 695 700

Val Val Ser Gln His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr  
 705 710 715 720

Glu Ile Ala Gln Thr Trp Gln Phe Leu Ser Ser His Ala Gly Ile Ile  
 725 730 735

Phe Ile Val Leu Gln Lys Val Glu Lys Thr Leu Leu Arg Gln Gln Val  
 740 745 750

Glu Leu Tyr Arg Leu Leu Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp  
 755 760 765

Ser Val Leu Gly Arg His Ile Phe Trp Arg Arg Leu Arg Lys Ala Leu  
 770 775 780

Leu Asp Gly Lys Ser Trp Asn Pro Glu Gly Thr Val Gly Thr Gly Cys  
 785 790 795 800

Asn

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 <212> DNA  
 <213> Macaca mulatta

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 tatagcttct tcagtttccc agaactgcag gtgctygatt tatccagggtg tgaaatccag 180  
 acaattgaag atggggcata tcagagccta agccacctct ccactttaat attgacagga 240  
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 ttgaaagaac ttaatgtggc tcacaatctt atccagtctt tcaaattacc tgagtatttt 420  
 tctaactctga ccaatctaga gcacttggac ctttccagta acaagattca aaatatttat 480  
 tgcaaagact tgcaggttct acatcaaagc ccctatcca atctctcttt agacctgtcc 540  
 ctgaacccta taaactttat ccaaccaggt gcattttaaag aaattaggct tcataagctg 600  
 actttgagaa gtaattttga tgatttaaag gtaatgaaa cttgtattca aggtctggct 660  
 ggtttagaag tccatcgttt ggttctggga gaatttagaa atgaaagaaa cttggaagag 720  
 tttgacaaat cttctctgga gggattgtgc aatttgacca ttgaagaatt ccgattaaca 780  
 tacttagact actacctga taatattatt gacttattta attgtttggc aaatgtttct 840  
 tcattttccc tgggtgagtgt gagtattaaa agggtagaag acttttctta taatttcaga 900  
 tggcaacatt tagaattagt taactgtaaa tttgaacagt ttccacatt ggaactcgaa 960

tctctcaaaa ggcttacttt cactgccaac aaaggtggga atgctttttc agaagttgat 1020

ctaccaagcc ttgagtttct agatctcagt agaaatggct tgagtttcaa aggttgctgt 1080

tctcaaagtg attttgggac aaccagccta aagtatttag atctgagctt caatgatgtt 1140

attaccatga gttcaaactt cttgggctta gaaaaactag aacatctgga tttccagcat 1200

tccaatttga aacagatgag tcaattttca gtattcctat cactcagaaa cctcattttac 1260

cttgacattt ctcatactca caccagagtt gctttcaatg gcattcttca tggcttgctc 1320

agtctcaaag tcttaaaaat ggctggcaat tctttccagg aaaacttcct tccagatatc 1380

ttcacagatc tgaaaaactt gaccttctcg gacctctctc agtgtcaatt ggagcagttg 1440

tctccaacag catttgacac actcaacaag cttcaggtag taaatatgag ccacaacaac 1500

ttcttttcat tggatacggt tccttataag tgtctgccct ccctccaggt tctcgattac 1560

agtctcaatc acataatgac ttccaacaac caggaaactac agcattttcc aagtagtcta 1620

gctttcttaa atcttactca gaatgacttt gcttgtagtt gtgaacacca gagtttctcg 1680

cagtggatca aggaccagag gcagctcttg gtggaagctg aacgaatgga atgtgcaaca 1740

ccttcagata aacagggcat gccggtgctg agtttgaata ttacctgtca gatgaataag 1800

accatcattg gtgtgtctgt gttcagtggt cttgtggtat ctgttgtagc agttctggtc 1860

tataagttct attttcacct gatgcttctt gctggctgca taaastatgg tagagggtgaa 1920

aacatctatg atgcctttgt tatctactca agccaggatg aggactgggt aaggaatgaa 1980

ctagtaaaga atttagaaga aggggtgcct ccctttcagc tctgccttca ctacagagac 2040

tttattcccg gtgtggccat tgctgcaaac atcatccatg aaggtttcca taaaagccga 2100

aagggtgattg ttgtggtgtc ccagcacttc atccagagcc gctgggtgtat ctttgaatat 2160

gagattgctc agacctggca gtttctgagc agtcgtgcag gcataatctt cattgtcctg 2220

cagaaggtgg agaagaccct gctcaggcag cagggtggagc tgtaccgcct tctcagcagg 2280

aacacttacc tggagtggga ggacagtgtc ctggggcagc acatcttctg gagacgactc 2340

agaaaagccc tgttggtatgg cagatcgtgg aatccagaag aacagtag 2388

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<212> DNA  
<213> Macaca mulatta

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&lt;400&gt; 11

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Val Val Pro Asn Ile Thr Tyr Gln Cys Met Glu Leu Asn Phe Tyr Lys	
1 5 10 15	
atc ccc gac aac ctc ccc ttc tca acc aag aac ctg gac ctg agc ttt	96
Ile Pro Asp Asn Leu Pro Phe Ser Thr Lys Asn Leu Asp Leu Ser Phe	
20 25 30	
aat ccc ctg agg cat tta ggc agc tat agc ttc ttc agt ttc cca gaa	144
Asn Pro Leu Arg His Leu Gly Ser Tyr Ser Phe Phe Ser Phe Pro Glu	
35 40 45	
ctg cag gtg ctg gat tta tcc agg tgt gaa atc cag aca att gaa gat	192
Leu Gln Val Leu Asp Leu Ser Arg Cys Glu Ile Gln Thr Ile Glu Asp	
50 55 60	
ggg gca tat cag agc cta agc cac ctc tcc act tta ata ttg aca gga	240
Gly Ala Tyr Gln Ser Leu Ser His Leu Ser Thr Leu Ile Leu Thr Gly	
65 70 75 80	
aac ccc atc cag agt tta gcc ctg gga gcc ttt tct gga cta tca agt	288
Asn Pro Ile Gln Ser Leu Ala Leu Gly Ala Phe Ser Gly Leu Ser Ser	
85 90 95	
tta cag aag ctg gtg gct gtg gag aca aat cta gca tct cta gag aac	336
Leu Gln Lys Leu Val Ala Val Glu Thr Asn Leu Ala Ser Leu Glu Asn	
100 105 110	
ttc ccc att gga cat ctc aaa act ttg aaa gaa ctt aat gtg gct cac	384
Phe Pro Ile Gly His Leu Lys Thr Leu Lys Glu Leu Asn Val Ala His	
115 120 125	
aat ctt atc cag tct ttc aaa tta cct gag tat ttt tct aat ctg acc	432
Asn Leu Ile Gln Ser Phe Lys Leu Pro Glu Tyr Phe Ser Asn Leu Thr	
130 135 140	
aat cta gag cac ttg gac ctt tcc agt aac aag att caa aat att tat	480
Asn Leu Glu His Leu Asp Leu Ser Ser Asn Lys Ile Gln Asn Ile Tyr	
145 150 155 160	
tgc aaa gac ttg cag gtt cta cat caa atg ccc cta tcc aat ctc tct	528
Cys Lys Asp Leu Gln Val Leu His Gln Met Pro Leu Ser Asn Leu Ser	
165 170 175	
tta gac ctg tcc ctg aac cct ata aac ttt atc caa cca ggt gca ttt	576
Leu Asp Leu Ser Leu Asn Pro Ile Asn Phe Ile Gln Pro Gly Ala Phe	
180 185 190	
aaa gaa att agg ctt cat aag ctg act ttg aga agt aat ttt gat gat	624
Lys Glu Ile Arg Leu His Lys Leu Thr Leu Arg Ser Asn Phe Asp Asp	
195 200 205	
tta aat gta atg aaa act tgt att caa ggt ctg gct ggt tta gaa gtc	672
Leu Asn Val Met Lys Thr Cys Ile Gln Gly Leu Ala Gly Leu Glu Val	
210 215 220	
cat cgt ttg gtt ctg gga gaa ttt aga aat gaa aga aac ttg gaa gag	720
His Arg Leu Val Leu Gly Glu Phe Arg Asn Glu Arg Asn Leu Glu Glu	
225 230 235 240	

ttt gac aaa tct tct ctg gag gga ttg tgc aat ttg acc att gaa gaa	768
Phe Asp Lys Ser Ser Leu Glu Gly Leu Cys Asn Leu Thr Ile Glu Glu	
245 250 255	
ttc cga tta aca tac tta gac tac tac ctc gat aat att att gac tta	816
Phe Arg Leu Thr Tyr Leu Asp Tyr Tyr Leu Asp Asn Ile Ile Asp Leu	
260 265 270	
ttt aat tgt ttg gca aat gtt tct tca ttt tcc ctg gtg agt gtg agt	864
Phe Asn Cys Leu Ala Asn Val Ser Ser Phe Ser Leu Val Ser Val Ser	
275 280 285	
att aaa agg gta gaa gac ttt tct tat aat ttc aga tgg caa cat tta	912
Ile Lys Arg Val Glu Asp Phe Ser Tyr Asn Phe Arg Trp Gln His Leu	
290 295 300	
gaa tta gtt aac tgt aaa ttt gaa cag ttt ccc aca ttg gaa ctc gaa	960
Glu Leu Val Asn Cys Lys Phe Glu Gln Phe Pro Thr Leu Glu Leu Glu	
305 310 315 320	
tct ctc aaa agg ctt act ttc act gcc aac aaa ggt ggg aat gct ttt	1008
Ser Leu Lys Arg Leu Thr Phe Thr Ala Asn Lys Gly Gly Asn Ala Phe	
325 330 335	
tca gaa gtt gat cta cca agc ctt gag ttt cta gat ctc agt aga aat	1056
Ser Glu Val Asp Leu Pro Ser Leu Glu Phe Leu Asp Leu Ser Arg Asn	
340 345 350	
ggc ttg agt ttc aaa ggt tgc tgt tct caa agt gat ttt ggg aca acc	1104
Gly Leu Ser Phe Lys Gly Cys Cys Ser Gln Ser Asp Phe Gly Thr Thr	
355 360 365	
agc cta aag tat tta gat ctg agc ttc aat gat gtt att acc atg agt	1152
Ser Leu Lys Tyr Leu Asp Leu Ser Phe Asn Asp Val Ile Thr Met Ser	
370 375 380	
tca aac ttc ttg ggc tta gaa aaa cta gaa cat ctg gat ttc cag cat	1200
Ser Asn Phe Leu Gly Leu Glu Lys Leu Glu His Leu Asp Phe Gln His	
385 390 395 400	
tcc aat ttg aaa cag atg agt caa ttt tca gta ttc cta tca ctc aga	1248
Ser Asn Leu Lys Gln Met Ser Gln Phe Ser Val Phe Leu Ser Leu Arg	
405 410 415	
aac ctc att tac ctt gac att tct cat act cac acc aga gtt gct ttc	1296
Asn Leu Ile Tyr Leu Asp Ile Ser His Thr His Thr Arg Val Ala Phe	
420 425 430	
aat ggc atc ttc gat ggc ttg ctc agt ctc aaa gtc tta aaa atg gct	1344
Asn Gly Ile Phe Asp Gly Leu Leu Ser Leu Lys Val Leu Lys Met Ala	
435 440 445	
ggc aat tct ttc cag gaa aac ttc ctt cca gat atc ttc aca gat ctg	1392
Gly Asn Ser Phe Gln Glu Asn Phe Leu Pro Asp Ile Phe Thr Asp Leu	
450 455 460	
aaa aac ttg acc ttc ctg gac ctc tct cag tgt caa ttg gag cag ttg	1440
Lys Asn Leu Thr Phe Leu Asp Leu Ser Gln Cys Gln Leu Glu Gln Leu	
465 470 475 480	

tct cca aca gca ttt gac aca ctc aac aag ctt cag gta cta aat atg	1488
Ser Pro Thr Ala Phe Asp Thr Leu Asn Lys Leu Gln Val Leu Asn Met	
485 490 495	
agc cac aac aac ttc ttt tca ttg gat acg ttt cct tat aag tgt ctg	1536
Ser His Asn Asn Phe Phe Ser Leu Asp Thr Phe Pro Tyr Lys Cys Leu	
500 505 510	
ccc tcc ctc cag gtt ctc gat tac agt ctc aat cac ata atg act tcc	1584
Pro Ser Leu Gln Val Leu Asp Tyr Ser Leu Asn His Ile Met Thr Ser	
515 520 525	
aac aac cag gaa cta cag cat ttt cca agt agt cta gct ttc tta aat	1632
Asn Asn Gln Glu Leu Gln His Phe Pro Ser Ser Leu Ala Phe Leu Asn	
530 535 540	
ctt act cag aat gac ttt gct tgt act tgt gaa cac cag agt ttc ctg	1680
Leu Thr Gln Asn Asp Phe Ala Cys Thr Cys Glu His Gln Ser Phe Leu	
545 550 555 560	
cag tgg atc aag gac cag agg cag ctc ttg gtg gaa gct gaa cga atg	1728
Gln Trp Ile Lys Asp Gln Arg Gln Leu Leu Val Glu Ala Glu Arg Met	
565 570 575	
gaa tgt gca aca cct tca gat aaa cag ggc atg ccg gtg ctg agt ttg	1776
Glu Cys Ala Thr Pro Ser Asp Lys Gln Gly Met Pro Val Leu Ser Leu	
580 585 590	
aat att acc tgt cag atg aat aag acc atc att ggt gtg tct gtg ttc	1824
Asn Ile Thr Cys Gln Met Asn Lys Thr Ile Ile Gly Val Ser Val Phe	
595 600 605	
agt gtg ctt gtg gta tct gtt gta gca gtt ctg gtc tat aag ttc tat	1872
Ser Val Leu Val Val Ser Val Val Ala Val Leu Val Tyr Lys Phe Tyr	
610 615 620	
ttt cac ctg atg ctt ctt gct ggc tgc ata aas tat ggt aga ggt gaa	1920
Phe His Leu Met Leu Leu Ala Gly Cys Ile Xaa Tyr Gly Arg Gly Glu	
625 630 635 640	
aac atc tat gat gcc ttt gtt atc tac tca agc cag gat gag gac tgg	1968
Asn Ile Tyr Asp Ala Phe Val Ile Tyr Ser Ser Gln Asp Glu Asp Trp	
645 650 655	
gta agg aat gaa cta gta aag aat tta gaa gaa ggg gtg cct ccc ttt	2016
Val Arg Asn Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Pro Phe	
660 665 670	
cag ctc tgc ctt cac tac aga gac ttt att ccc ggt gtg gcc att gct	2064
Gln Leu Cys Leu His Tyr Arg Asp Phe Ile Pro Gly Val Ala Ile Ala	
675 680 685	
gca aac atc atc cat gaa ggt ttc cat aaa agc cga aag gtg att gtt	2112
Ala Asn Ile Ile His Glu Gly Phe His Lys Ser Arg Lys Val Ile Val	
690 695 700	
gtg gtg tcc cag cac ttc atc cag agc cgc tgg tgt atc ttt gaa tat	2160
Val Val Ser Gln His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr	
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785 790 795

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Phe Pro Ile Gly His Leu Lys Thr Leu Lys Glu Leu Asn Val Ala His  
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Asn Leu Ile Gln Ser Phe Lys Leu Pro Glu Tyr Phe Ser Asn Leu Thr  
 130 135 140

Asn Leu Glu His Leu Asp Leu Ser Ser Asn Lys Ile Gln Asn Ile Tyr  
 145 150 155 160

Cys Lys Asp Leu Gln Val Leu His Gln Met Pro Leu Ser Asn Leu Ser  
 165 170 175

Leu Asp Leu Ser Leu Asn Pro Ile Asn Phe Ile Gln Pro Gly Ala Phe  
 180 185 190

Lys Glu Ile Arg Leu His Lys Leu Thr Leu Arg Ser Asn Phe Asp Asp  
 195 200 205

Leu Asn Val Met Lys Thr Cys Ile Gln Gly Leu Ala Gly Leu Glu Val  
 210 215 220

His Arg Leu Val Leu Gly Glu Phe Arg Asn Glu Arg Asn Leu Glu Glu  
 225 230 235 240

Phe Asp Lys Ser Ser Leu Glu Gly Leu Cys Asn Leu Thr Ile Glu Glu  
 245 250 255

Phe Arg Leu Thr Tyr Leu Asp Tyr Tyr Leu Asp Asn Ile Ile Asp Leu  
 260 265 270

Phe Asn Cys Leu Ala Asn Val Ser Ser Phe Ser Leu Val Ser Val Ser  
 275 280 285

Ile Lys Arg Val Glu Asp Phe Ser Tyr Asn Phe Arg Trp Gln His Leu  
 290 295 300

Glu Leu Val Asn Cys Lys Phe Glu Gln Phe Pro Thr Leu Glu Leu Glu  
 305 310 315 320

Ser Leu Lys Arg Leu Thr Phe Thr Ala Asn Lys Gly Gly Asn Ala Phe  
 325 330 335

Ser Glu Val Asp Leu Pro Ser Leu Glu Phe Leu Asp Leu Ser Arg Asn  
 340 345 350

Gly Leu Ser Phe Lys Gly Cys Cys Ser Gln Ser Asp Phe Gly Thr Thr  
 355 360 365

Ser Leu Lys Tyr Leu Asp Leu Ser Phe Asn Asp Val Ile Thr Met Ser  
 370 375 380

Ser Asn Phe Leu Gly Leu Glu Lys Leu Glu His Leu Asp Phe Gln His  
 385 390 395 400

Ser Asn Leu Lys Gln Met Ser Gln Phe Ser Val Phe Leu Ser Leu Arg  
 405 410 415

Asn Leu Ile Tyr Leu Asp Ile Ser His Thr His Thr Arg Val Ala Phe  
 420 425 430

Asn Gly Ile Phe Asp Gly Leu Leu Ser Leu Lys Val Leu Lys Met Ala  
 435 440 445

Gly Asn Ser Phe Gln Glu Asn Phe Leu Pro Asp Ile Phe Thr Asp Leu  
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Lys Asn Leu Thr Phe Leu Asp Leu Ser Gln Cys Gln Leu Glu Gln Leu  
 465 470 475 480

Ser Pro Thr Ala Phe Asp Thr Leu Asn Lys Leu Gln Val Leu Asn Met  
 485 490 495

Ser His Asn Asn Phe Phe Ser Leu Asp Thr Phe Pro Tyr Lys Cys Leu  
 500 505 510

Pro Ser Leu Gln Val Leu Asp Tyr Ser Leu Asn His Ile Met Thr Ser  
 515 520 525

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Glu Cys Ala Thr Pro Ser Asp Lys Gln Gly Met Pro Val Leu Ser Leu  
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Val Arg Asn Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Pro Phe  
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agaaaagccc tgctggatgg tagaccgtgg aatccagaag gaacagtggg tgcaggatgc 2400
gaatag 2406

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<210> 17
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<212> DNA
<213> Saimiri sciureus

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<221> CDS
<222> (1)..(2406)

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Val Val Pro Asn Val Thr Tyr Gln Cys Met Glu Leu Asn Xaa Tyr Lys
1 5 10 15

atc ccc gac aac atc ccc ttc tca act aag aac ctg gac ctg agc ttt 96
Ile Pro Asp Asn Ile Pro Phe Ser Thr Lys Asn Leu Asp Leu Ser Phe
20 25 30

aac ccc ctg agg cat tta ggc agc cat agc ttc ttc aat ttc cca gaa 144
Asn Pro Leu Arg His Leu Gly Ser His Ser Phe Phe Asn Phe Pro Glu
35 40 45

ctg cag gtg ctg gat tta tcc agg tgt gac atc cag aca atc gaa gat 192
Leu Gln Val Leu Asp Leu Ser Arg Cys Asp Ile Gln Thr Ile Glu Asp
50 55 60

ggg gca tat cag agc cta agc cac ctc tcc acc tta ata ttg aca gga 240
Gly Ala Tyr Gln Ser Leu Ser His Leu Ser Thr Leu Ile Leu Thr Gly
65 70 75 80

aat cct atc cag aat tta gcc ctg gga gcc ttt tct gga cta tca agt 288
Asn Pro Ile Gln Asn Leu Ala Leu Gly Ala Phe Ser Gly Leu Ser Ser
85 90 95

tta cag aag ctg gtg gct gtg gag aca cat ctg tta tca cta gag aac 336
Leu Gln Lys Leu Val Ala Val Glu Thr His Leu Leu Ser Leu Glu Asn

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100	105	110	
ttc ccc att gga cat ctc aaa act	ttg aag gac ctt aat gtg gct cac		384
Phe Pro Ile Gly His Leu Lys Thr	Leu Lys Asp Leu Asn Val Ala His		
115	120	125	
aat cta atc caa tct ttc aaa tta cct gag tat ttt tct aat ctg acc			432
Asn Leu Ile Gln Ser Phe Lys Leu Pro Glu Tyr Phe Ser Asn Leu Thr			
130	135	140	
aat cta gag cac ttg gac ctt tct agt aac aat att caa aat att tat			480
Asn Leu Glu His Leu Asp Leu Ser Ser Asn Asn Ile Gln Asn Ile Tyr			
145	150	155	160
tgc aaa gac ttg cag gtt cta cat caa atg ccc cta ctc aat ctc tct			528
Cys Lys Asp Leu Gln Val Leu His Gln Met Pro Leu Leu Asn Leu Ser			
165	170	175	
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Leu Asp Leu Ser Leu Asn Pro Ile Asn Phe Ile Gln Pro Gly Ala Phe			
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aaa gaa att agg ctc cat aag ctg act ttg aga aat aat ttt gat agt			624
Lys Glu Ile Arg Leu His Lys Leu Thr Leu Arg Asn Asn Phe Asp Ser			
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Leu Asn Ala Met Lys Thr Cys Ile Gln Gly Leu Ala Gly Leu Glu Val			
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cat cgt ttg gtt ctg gga gaa ttt aga aat gaa aga aat att gaa gac			720
His Arg Leu Val Leu Gly Glu Phe Arg Asn Glu Arg Asn Ile Glu Asp			
225	230	235	240
ttt gac aaa tct gct ctg gag ggc ctg tgc aat ttg acc att aat gaa			768
Phe Asp Lys Ser Ala Leu Glu Gly Leu Cys Asn Leu Thr Ile Asn Glu			
245	250	255	
ttc cga tta gct tac tta gat gac ttt cta gat gat att att gac tta			816
Phe Arg Leu Ala Tyr Leu Asp Asp Phe Leu Asp Asp Ile Ile Asp Leu			
260	265	270	
ttt aac tgt tta gca aat gtt tct tca ttt tcc ctg gtg aat gtg cat			864
Phe Asn Cys Leu Ala Asn Val Ser Ser Phe Ser Leu Val Asn Val His			
275	280	285	
att aaa aga gta gaa gac ttt tct tat aat ttt aga tgg caa cat tta			912
Ile Lys Arg Val Glu Asp Phe Ser Tyr Asn Phe Arg Trp Gln His Leu			
290	295	300	
gaa tta gtt aac tgt gta ttt caa cag ttt cct cca ctg aaa ctc aaa			960
Glu Leu Val Asn Cys Val Phe Gln Gln Phe Pro Pro Leu Lys Leu Lys			
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tct ctc aaa agg ctt act ttc act gcc aac aaa ggt agg aat cat ttt			1008
Ser Leu Lys Arg Leu Thr Phe Thr Ala Asn Lys Gly Arg Asn His Phe			
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tca gaa gtt gat ctt cca agc ctt gag ttt cta gat ctc agt aga aat			1056
Ser Glu Val Asp Leu Pro Ser Leu Glu Phe Leu Asp Leu Ser Arg Asn			

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Gly	Leu	Ser	Phe	Lys	Gly	Cys	Cys	Ser	Gln	Ser	Asp	Phe	Gly	Thr	Thr	
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agc	cta	aag	tat	tta	gat	ctg	agc	ttc	aat	gac	gtt	att	acc	atg	ggg	1152
Ser	Leu	Lys	Tyr	Leu	Asp	Leu	Ser	Phe	Asn	Asp	Val	Ile	Thr	Met	Gly	
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Asn	Leu	Ile	Tyr	Leu	Asp	Ile	Ser	His	Thr	His	Thr	Arg	Val	Ala	Phe	
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Ser	Pro	Thr	Ala	Phe	Asp	Ser	Leu	Pro	Arg	Leu	Arg	Ile	Leu	Asn	Met	
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Ser	His	Asn	Asn	Phe	Phe	Ala	Leu	Asp	Thr	Phe	Pro	Tyr	Lys	His	Leu	
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Tyr	Ser	Leu	Gln	Val	Leu	Asp	Tyr	Ser	Leu	Asn	His	Ile	Gly	Thr	Ser	
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Lys	Asn	Gln	Glu	Leu	Gln	His	Phe	Pro	Ser	Ser	Leu	Ala	Phe	Leu	Asn	
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ctt	act	caa	aat	gac	ttt	gct	tgt	act	tgt	gaa	cac	cag	agt	ttc	ctg	1680
Leu	Thr	Gln	Asn	Asp	Phe	Ala	Cys	Thr	Cys	Glu	His	Gln	Ser	Phe	Leu	
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cag	tgg	atc	aag	gac	cag	agg	cgg	ctg	ttg	gtg	gaa	gtt	gaa	caa	atg	1728
Gln	Trp	Ile	Lys	Asp	Gln	Arg	Arg	Leu	Leu	Val	Glu	Val	Glu	Gln	Met	
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Ser	Val	Leu	Val	Val	Ser	Val	Val	Ala	Val	Leu	Val	Tyr	Lys	Phe	Tyr					
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Phe	His	Leu	Met	Leu	Leu	Ala	Gly	Cys	Ile	Lys	Tyr	Gly	Arg	Gly	Glu					
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gta	agg	aat	gaa	cta	gta	aag	aat	tta	gaa	gaa	ggg	gtg	cct	ccc	ttt	2016				
Val	Arg	Asn	Glu	Leu	Val	Lys	Asn	Leu	Glu	Glu	Gly	Val	Pro	Pro	Phe					
660										665					670					
cag	ctc	tgc	ctt	cac	tac	aga	gac	ttt	att	ccc	ggt	gtg	gcc	att	gct	2064				
Gln	Leu	Cys	Leu	His	Tyr	Arg	Asp	Phe	Ile	Pro	Gly	Val	Ala	Ile	Ala					
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Ala	Asn	Ile	Ile	His	Glu	Gly	Phe	His	Lys	Ser	Arg	Lys	Val	Ile	Val					
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gtg	gta	tct	cag	cac	ttc	atc	cag	agc	cgc	tgg	tgt	atc	ttt	gaa	tat	2160				
Val	Val	Ser	Gln	His	Phe	Ile	Gln	Ser	Arg	Trp	Cys	Ile	Phe	Glu	Tyr					
705										710					715					720
gag	att	gct	cag	acc	tgg	cag	ttt	ctg	agc	agt	cgt	gct	ggt	atc	atc	2208				
Glu	Ile	Ala	Gln	Thr	Trp	Gln	Phe	Leu	Ser	Ser	Arg	Ala	Gly	Ile	Ile					
725										730					735					
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Ser	Val	Leu	Gly	Arg	His	Ile	Phe	Trp	Arg	Arg	Leu	Arg	Lys	Ala	Leu					
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ctg	gat	ggt	aga	ccg	tgg	aat	cca	gaa	gga	aca	gtg	ggt	gca	gga	tgc	2400				
Leu	Asp	Gly	Arg	Pro	Trp	Asn	Pro	Glu	Gly	Thr	Val	Gly	Ala	Gly	Cys					
785										790					795					800
gaa tag															2406					
Glu																				



<211> 801  
 <212> PRT  
 <213> Saimiri sciureus

<220>  
 <221> misc\_feature  
 <222> (14)..(14)  
 <223> The 'Xaa' at location 14 stands for Leu, or Phe.

<220>  
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 <222> (462)..(462)  
 <223> The 'Xaa' at location 462 stands for Thr.

<400> 18

Val Val Pro Asn Val Thr Tyr Gln Cys Met Glu Leu Asn Xaa Tyr Lys  
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Ile Pro Asp Asn Ile Pro Phe Ser Thr Lys Asn Leu Asp Leu Ser Phe  
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Asn Pro Leu Arg His Leu Gly Ser His Ser Phe Phe Asn Phe Pro Glu  
 35 40 45

Leu Gln Val Leu Asp Leu Ser Arg Cys Asp Ile Gln Thr Ile Glu Asp  
 50 55 60

Gly Ala Tyr Gln Ser Leu Ser His Leu Ser Thr Leu Ile Leu Thr Gly  
 65 70 75 80

Asn Pro Ile Gln Asn Leu Ala Leu Gly Ala Phe Ser Gly Leu Ser Ser  
 85 90 95

Leu Gln Lys Leu Val Ala Val Glu Thr His Leu Leu Ser Leu Glu Asn  
 100 105 110

Phe Pro Ile Gly His Leu Lys Thr Leu Lys Asp Leu Asn Val Ala His  
 115 120 125

Asn Leu Ile Gln Ser Phe Lys Leu Pro Glu Tyr Phe Ser Asn Leu Thr  
 130 135 140

Asn Leu Glu His Leu Asp Leu Ser Ser Asn Asn Ile Gln Asn Ile Tyr  
 145 150 155 160

Cys Lys Asp Leu Gln Val Leu His Gln Met Pro Leu Leu Asn Leu Ser  
 165 170 175

Leu Asp Leu Ser Leu Asn Pro Ile Asn Phe Ile Gln Pro Gly Ala Phe  
 180 185 190

Lys Glu Ile Arg Leu His Lys Leu Thr Leu Arg Asn Asn Phe Asp Ser  
 195 200 205

Leu Asn Ala Met Lys Thr Cys Ile Gln Gly Leu Ala Gly Leu Glu Val  
 210 215 220

His Arg Leu Val Leu Gly Glu Phe Arg Asn Glu Arg Asn Ile Glu Asp  
 225 230 235 240

Phe Asp Lys Ser Ala Leu Glu Gly Leu Cys Asn Leu Thr Ile Asn Glu  
 245 250 255

Phe Arg Leu Ala Tyr Leu Asp Asp Phe Leu Asp Asp Ile Ile Asp Leu  
 260 265 270

Phe Asn Cys Leu Ala Asn Val Ser Ser Phe Ser Leu Val Asn Val His  
 275 280 285

Ile Lys Arg Val Glu Asp Phe Ser Tyr Asn Phe Arg Trp Gln His Leu  
 290 295 300

Glu Leu Val Asn Cys Val Phe Gln Gln Phe Pro Pro Leu Lys Leu Lys  
 305 310 315 320

Ser Leu Lys Arg Leu Thr Phe Thr Ala Asn Lys Gly Arg Asn His Phe  
 325 330 335

Ser Glu Val Asp Leu Pro Ser Leu Glu Phe Leu Asp Leu Ser Arg Asn  
 340 345 350

Gly Leu Ser Phe Lys Gly Cys Cys Ser Gln Ser Asp Phe Gly Thr Thr  
 355 360 365

Ser Leu Lys Tyr Leu Asp Leu Ser Phe Asn Asp Val Ile Thr Met Gly  
 370 375 380

Ser Asn Phe Leu Gly Leu Glu Gln Leu Glu His Leu Asp Phe Gln His  
 385 390 395 400

Ser Asn Leu Lys Gln Met Ser Glu Phe Ser Val Phe Leu Ser Leu Arg  
 405 410 415

Asn Leu Ile Tyr Leu Asp Ile Ser His Thr His Thr Arg Val Ala Phe  
 420 425 430

Asn Gly Ile Phe Asn Gly Leu Phe Ser Leu Lys Val Leu Lys Met Ala  
 435 440 445

Gly Asn Ser Phe Gln Gln Asn Phe Leu Glu Asp Ile Phe Xaa Asp Leu  
 450 455 460

Asn Asn Leu Ile Phe Leu Asp Leu Ser Glu Cys Gln Leu Glu Gln Leu  
 465 470 475 480

Ser Pro Thr Ala Phe Asp Ser Leu Pro Arg Leu Arg Ile Leu Asn Met  
 485 490 495

Ser His Asn Asn Phe Phe Ala Leu Asp Thr Phe Pro Tyr Lys His Leu  
 500 505 510

Tyr Ser Leu Gln Val Leu Asp Tyr Ser Leu Asn His Ile Gly Thr Ser  
 515 520 525

Lys Asn Gln Glu Leu Gln His Phe Pro Ser Ser Leu Ala Phe Leu Asn  
 530 535 540

Leu Thr Gln Asn Asp Phe Ala Cys Thr Cys Glu His Gln Ser Phe Leu  
 545 550 555 560

Gln Trp Ile Lys Asp Gln Arg Arg Leu Leu Val Glu Val Glu Gln Met  
 565 570 575

Glu Cys Ala Thr Pro Leu Asn Arg Lys Gly Ile Pro Val Leu Ser Leu  
 580 585 590

Asn Ile Thr Cys Gln Met Ser Lys Thr Ile Ile Gly Val Ser Val Leu  
 595 600 605

Ser Val Leu Val Val Ser Val Val Ala Val Leu Val Tyr Lys Phe Tyr  
 610 615 620

Phe His Leu Met Leu Leu Ala Gly Cys Ile Lys Tyr Gly Arg Gly Glu  
 625 630 635 640

Asn Thr Tyr Asp Ala Phe Val Ile Tyr Ser Ser Gln Asp Glu Asp Trp  
 645 650 655

Val Arg Asn Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Pro Phe  
660 665 670

Gln Leu Cys Leu His Tyr Arg Asp Phe Ile Pro Gly Val Ala Ile Ala  
675 680 685

Ala Asn Ile Ile His Glu Gly Phe His Lys Ser Arg Lys Val Ile Val  
690 695 700

Val Val Ser Gln His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr  
705 710 715 720

Glu Ile Ala Gln Thr Trp Gln Phe Leu Ser Ser Arg Ala Gly Ile Ile  
725 730 735

Phe Ile Val Leu Gln Lys Val Glu Lys Ser Leu Leu Arg Gln Gln Val  
740 745 750

Glu Leu Tyr Arg Leu Leu Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp  
755 760 765

Ser Val Leu Gly Arg His Ile Phe Trp Arg Arg Leu Arg Lys Ala Leu  
770 775 780

Leu Asp Gly Arg Pro Trp Asn Pro Glu Gly Thr Val Gly Ala Gly Cys  
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Glu

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<211> 2388  
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<213> Papio hamadryas

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tatagcttcc tccgttttcc agaactgcag gtgctggatt tatccaggtg tgaaatccag 180  
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 aacacttacc tggagtggga ggacagtgtc ctagggcagc acatcttctg gagacgactc 2340  
 agaaaagccc tgttggtatgg cagatcgtgg aatccagaag aacagtag 2388

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 <212> DNA  
 <213> Papio hamadryas

<220>  
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 <222> (1)..(2388)

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 atc ccc gac aac atc ccc ttc tca acc aag aac ctg gac ctg agc ttt 96  
 Ile Pro Asp Asn Ile Pro Phe Ser Thr Lys Asn Leu Asp Leu Ser Phe  
 20 25 30  
 aat ccc ctg agg cat tta ggc agc tat agc ttc ctc cgt ttt cca gaa 144  
 Asn Pro Leu Arg His Leu Gly Ser Tyr Ser Phe Leu Arg Phe Pro Glu  
 35 40 45  
 ctg cag gtg ctg gat tta tcc agg tgt gaa atc cag aca att gaa gat 192  
 Leu Gln Val Leu Asp Leu Ser Arg Cys Glu Ile Gln Thr Ile Glu Asp  
 50 55 60  
 ggg gca tat cag agc cta agc cac ctc tcc acc tta ata ttg aca gga 240  
 Gly Ala Tyr Gln Ser Leu Ser His Leu Ser Thr Leu Ile Leu Thr Gly  
 65 70 75 80  
 aac ccc atc cag agt tta gcc ctg gga gcc ttt tct gga cta tca agt 288  
 Asn Pro Ile Gln Ser Leu Ala Leu Gly Ala Phe Ser Gly Leu Ser Ser  
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 tta cag aag ctg gtg gct gtg gag aca aat cta gca tct cta gag aac 336  
 Leu Gln Lys Leu Val Ala Val Glu Thr Asn Leu Ala Ser Leu Glu Asn  
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 Phe Pro Ile Gly His Leu Lys Thr Leu Lys Glu Leu Asn Val Ala His  
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 aat ctt atc cag tct ttc aaa tta cct gag tat ttt tct aat ctg acc 432  
 Asn Leu Ile Gln Ser Phe Lys Leu Pro Glu Tyr Phe Ser Asn Leu Thr  
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55

56



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Leu	Gln	Val	Leu	Asp	Leu	Ser	Arg	Cys	Glu	Ile	Gln	Thr	Ile	Glu	Asp
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Gly Ala Tyr Gln Ser Leu Ser His Leu Ser Thr Leu Ile Leu Thr Gly  
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Asn Pro Ile Gln Ser Leu Ala Leu Gly Ala Phe Ser Gly Leu Ser Ser  
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Leu Gln Lys Leu Val Ala Val Glu Thr Asn Leu Ala Ser Leu Glu Asn  
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Phe Pro Ile Gly His Leu Lys Thr Leu Lys Glu Leu Asn Val Ala His  
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Asn Leu Ile Gln Ser Phe Lys Leu Pro Glu Tyr Phe Ser Asn Leu Thr  
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Asn Leu Glu His Leu Asp Leu Ser Ser Asn Lys Ile Gln Asn Ile Tyr  
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Cys Lys Asp Leu Gln Val Leu His Gln Met Pro Leu Pro Asn Leu Ser  
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Leu Asp Leu Ser Leu Asn Pro Ile Asn Phe Ile Gln Pro Gly Ala Phe  
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Lys Glu Ile Arg Leu His Lys Leu Thr Leu Arg Ser Asn Phe Asp Asp  
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Leu Asn Val Met Lys Thr Cys Ile Gln Gly Leu Ala Gly Leu Glu Val  
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His Arg Leu Val Leu Gly Glu Phe Arg Asn Glu Arg Asn Leu Glu Glu  
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Phe Asp Lys Ser Ala Leu Glu Gly Leu Cys Asn Leu Thr Ile Glu Glu  
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Phe Arg Leu Thr Tyr Leu Asp Tyr Tyr Leu Asp Asn Ile Ile Asp Leu  
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Phe Asn Cys Leu Ala Asn Ala Ser Ser Phe Ser Leu Val Ser Val Asn  
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Ser Glu Val Asp Leu Pro Ser Leu Glu Phe Leu Asp Leu Ser Arg Asn  
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Ser Leu Lys Tyr Leu Asp Leu Ser Phe Asn Asp Val Ile Thr Met Gly  
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Ser Asn Phe Leu Gly Leu Glu Gln Leu Glu His Leu Asp Phe Gln His  
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Ser Asn Leu Lys Gln Met Ser Gln Phe Ser Val Phe Leu Ser Leu Arg  
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Asn Leu Ile Tyr Leu Asp Ile Ser His Thr His Thr Thr Val Ala Phe  
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Asn Gly Ile Phe Asp Gly Leu Leu Ser Leu Lys Val Leu Lys Met Ala  
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Gly Asn Ser Phe Gln Glu Asn Phe Leu Pro Asp Ile Phe Thr Asp Leu  
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Lys Asn Leu Thr Phe Leu Asp Leu Ser Gln Cys Gln Leu Glu Gln Leu  
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Ser Pro Thr Ala Phe Asp Thr Leu Asn Lys Leu Gln Val Leu Asn Met  
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Ser His Asn Asn Phe Phe Ser Leu Asp Val Phe Pro Tyr Lys Cys Leu  
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Pro Ser Leu Gln Val Leu Asp Tyr Ser Leu Asn His Ile Met Thr Ser  
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Lys Asn Gln Glu Pro Gln His Phe Pro Ser Ser Leu Ala Phe Leu Asn  
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Leu Thr Gln Asn Asp Phe Ala Cys Thr Cys Glu His Gln Ser Phe Leu  
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Glu Cys Ala Thr Pro Ser Asp Lys Gln Gly Met Pro Val Leu Ser Val  
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Asn Ile Thr Cys Gln Met Asn Lys Thr Ile Ile Gly Val Ser Val Phe  
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Ser Val Leu Val Val Ser Val Val Ala Val Leu Val Tyr Lys Phe Tyr  
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Phe His Leu Met Leu Leu Ala Gly Cys Ile Lys Tyr Gly Arg Gly Glu  
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Asn Ile Tyr Asp Ala Phe Val Ile Tyr Ser Ser Gln Asp Glu Asp Trp  
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 660 665 670

Gln Leu Cys Leu His Tyr Arg Asp Phe Ile Pro Gly Val Ala Ile Ala  
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Ala Asn Ile Ile His Glu Gly Phe His Lys Ser Arg Lys Val Ile Val  
 690 695 700

Val Val Ser Gln His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr  
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Glu Leu Tyr Arg Leu Leu Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp  
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Ile Pro Asp Asn Leu Pro Phe Ser Thr Lys Asn Leu Asp Leu Ser Phe
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aat ccc ctg agg cat tta ggc agc tat agc ttc ttc agt ttc cca gaa 144
Asn Pro Leu Arg His Leu Gly Ser Tyr Ser Phe Phe Ser Phe Pro Glu
35 40 45

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Gly Asn Ser Phe Gln Glu Asn Phe Leu Pro Asp Ile Phe Thr Glu Leu			
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Arg Asn Leu Thr Phe Leu Asp Leu Ser Gln Cys Gln Leu Glu Gln Leu			
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Lys Lys Gln Glu Leu Gln His Phe Pro Ser Ser Leu Ala Phe Leu Asn			



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				725					730					735		
ttc	att	gtc	ctg	cag	aag	gtg	gag	aag	acc	ctg	ctc	agg	cgg	cag	gtg	2256
Phe	Ile	Val	Leu	Gln	Lys	Val	Glu	Lys	Thr	Leu	Leu	Arg	Arg	Gln	Val	
			740					745					750			
gag	ctg	tac	cgc	ctt	cty	agc	agg	aac	act	tac	ctg	gag	tgg	gag	gac	2304
Glu	Leu	Tyr	Arg	Leu	Xaa	Ser	Arg	Asn	Thr	Tyr	Leu	Glu	Trp	Glu	Asp	
		755				760					765					
agt	gtc	ctg	ggg	cgg	cac	atc	ttc	tgg	aga	cga	ctc	aga	aaa	gcc	ctg	2352
Ser	Val	Leu	Gly	Arg	His	Ile	Phe	Trp	Arg	Arg	Leu	Arg	Lys	Ala	Leu	

770 775 780

ctg gat ggt aaa tca tgg aat cca gaa gga aca gtg ggt aca gga tgc 2400  
 Leu Asp Gly Lys Ser Trp Asn Pro Glu Gly Thr Val Gly Thr Gly Cys  
 785 790 795 800

aat tgg cag gaa gca aca tct atc tga 2427  
 Asn Trp Gln Glu Ala Thr Ser Ile  
 805

<210> 24  
 <211> 808  
 <212> PRT  
 <213> Pan troglodytes

<220>  
 <221> misc\_feature  
 <222> (758)..(758)  
 <223> The 'Xaa' at location 758 stands for Leu.

<400> 24

Val Val Pro Asn Ile Thr Tyr Gln Cys Met Glu Leu Asn Phe Tyr Lys  
 1 5 10 15

Ile Pro Asp Asn Leu Pro Phe Ser Thr Lys Asn Leu Asp Leu Ser Phe  
 20 25 30

Asn Pro Leu Arg His Leu Gly Ser Tyr Ser Phe Phe Ser Phe Pro Glu  
 35 40 45

Leu Gln Val Leu Asp Leu Ser Arg Cys Glu Ile Gln Thr Ile Glu Asp  
 50 55 60

Gly Ala Tyr Gln Ser Leu Ser His Leu Ser Thr Leu Ile Leu Thr Gly  
 65 70 75 80

Asn Pro Ile Gln Ser Leu Ala Leu Gly Ala Phe Ser Gly Leu Ser Ser  
 85 90 95

Leu Gln Lys Leu Val Ala Val Glu Thr Asn Leu Ala Ser Leu Glu Asn  
 100 105 110

Phe Pro Ile Gly His Leu Lys Thr Leu Lys Glu Leu Asn Val Ala His  
 115 120 125

Asn Leu Ile Gln Ser Phe Lys Leu Pro Glu Tyr Phe Ser Asn Leu Thr  
 130 135 140

Asn Leu Glu His Leu Asp Leu Ser Ser Asn Lys Ile Gln Ser Ile Tyr

145                      150                      155                      160  
 Cys Thr Asp Leu Arg Val Leu His Gln Met Pro Leu Leu Asn Leu Ser  
                                  165                                   170                                   175  
 Leu Asp Leu Ser Leu Asn Pro Met Asn Phe Ile Gln Pro Gly Ala Phe  
                                  180                                   185                                   190  
 Lys Glu Ile Arg Leu His Lys Leu Thr Leu Arg Asn Asn Phe Asp Ser  
                                  195                                   200                                   205  
 Leu Asn Val Met Lys Thr Cys Ile Gln Gly Leu Ala Gly Leu Glu Val  
                                  210                                   215                                   220  
 His Arg Leu Val Leu Gly Glu Phe Arg Asn Glu Glu Asn Leu Glu Lys  
                                  225                                   230                                   235                                   240  
 Phe Asp Lys Ser Ala Leu Glu Gly Leu Cys Asn Leu Thr Ile Glu Glu  
                                  245                                   250                                   255  
 Phe Arg Leu Ala Tyr Leu Asp Tyr Tyr Leu Asp Asp Ile Ile Asp Leu  
                                  260                                   265                                   270  
 Phe Asn Cys Leu Thr Asn Val Ser Ser Phe Ser Leu Val Ser Val Thr  
                                  275                                   280                                   285  
 Ile Lys Ser Val Lys Asp Phe Ser Tyr Asn Phe Gly Trp Gln His Leu  
                                  290                                   295                                   300  
 Glu Leu Val Lys Cys Lys Phe Gly Gln Phe Pro Thr Leu Lys Leu Lys  
                                  305                                   310                                   315                                   320  
 Ser Leu Lys Arg Leu Thr Phe Thr Ser Asn Lys Gly Gly Asn Ala Phe  
                                  325                                   330                                   335  
 Ser Glu Val Asp Leu Pro Ser Leu Glu Phe Leu Asp Leu Ser Arg Asn  
                                  340                                   345                                   350  
 Gly Leu Ser Phe Lys Gly Cys Cys Ser Gln Ser Asp Phe Gly Thr Thr  
                                  355                                   360                                   365  
 Ser Leu Lys Tyr Leu Asp Leu Ser Phe Asn Gly Val Ile Thr Met Ser  
                                  370                                   375                                   380  
 Ser Asn Phe Leu Gly Leu Glu Gln Leu Glu His Leu Asp Phe Gln His

385                      390                      395                      400  
 Ser Asn Leu Lys Gln Met Ser Glu Phe Ser Val Phe Leu Ser Leu Arg  
                                  405                      410                      415  
 Asn Leu Ile Tyr Leu Asp Ile Ser His Thr His Thr Arg Val Ala Phe  
                                  420                      425                      430  
 Asn Gly Ile Phe Asn Gly Leu Ser Ser Leu Glu Val Leu Lys Met Ala  
                                  435                      440                      445  
 Gly Asn Ser Phe Gln Glu Asn Phe Leu Pro Asp Ile Phe Thr Glu Leu  
                                  450                      455                      460  
 Arg Asn Leu Thr Phe Leu Asp Leu Ser Gln Cys Gln Leu Glu Gln Leu  
                                  465                      470                      475                      480  
 Ser Pro Thr Ala Phe Asn Ser Leu Ser Ser Leu Gln Val Leu Asn Met  
                                  485                      490                      495  
 Ser His Asn Asn Phe Phe Ser Leu Asp Thr Phe Pro Tyr Lys Cys Leu  
                                  500                      505                      510  
 Asn Ser Leu Gln Val Leu Asp Tyr Ser Leu Asn His Ile Met Thr Ser  
                                  515                      520                      525  
 Lys Lys Gln Glu Leu Gln His Phe Pro Ser Ser Leu Ala Phe Leu Asn  
                                  530                      535                      540  
 Leu Thr Gln Asn Asp Phe Ala Cys Thr Cys Glu His Gln Ser Phe Leu  
                                  545                      550                      555                      560  
 Gln Trp Ile Lys Asp Gln Arg Gln Leu Leu Val Glu Val Glu Arg Met  
                                  565                      570                      575  
 Glu Cys Ala Thr Pro Ser Asp Lys Gln Gly Met Pro Val Leu Ser Leu  
                                  580                      585                      590  
 Asn Ile Thr Cys Gln Met Asn Lys Thr Ile Ile Gly Val Ser Val Leu  
                                  595                      600                      605  
 Ser Val Leu Val Val Ser Val Val Ala Val Leu Val Tyr Lys Phe Tyr  
                                  610                      615                      620  
 Phe His Leu Met Leu Leu Ala Gly Cys Ile Lys Tyr Gly Arg Gly Glu

625                      630                      635                      640  
 Asn Ile Tyr Asp Ala Phe Val Ile Tyr Ser Ser Gln Asp Glu Asp Trp  
                                 645                      650                      655  
 Val Arg Asn Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Pro Phe  
                                 660                      665                      670  
 Gln Leu Cys Leu His Tyr Arg Asp Phe Ile Pro Gly Val Ala Ile Ala  
                                 675                      680                      685  
 Ala Asn Ile Ile His Glu Gly Phe His Lys Ser Arg Lys Val Ile Val  
                                 690                      695                      700  
 Val Val Ser Gln His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr  
 705                      710                      715                      720  
 Glu Ile Ala Gln Thr Trp Gln Phe Leu Ser Ser Arg Ala Gly Ile Ile  
                                 725                      730                      735  
 Phe Ile Val Leu Gln Lys Val Glu Lys Thr Leu Leu Arg Arg Gln Val  
                                 740                      745                      750  
 Glu Leu Tyr Arg Leu Xaa Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp  
                                 755                      760                      765  
 Ser Val Leu Gly Arg His Ile Phe Trp Arg Arg Leu Arg Lys Ala Leu  
                                 770                      775                      780  
 Leu Asp Gly Lys Ser Trp Asn Pro Glu Gly Thr Val Gly Thr Gly Cys  
 785                      790                      795                      800  
 Asn Trp Gln Glu Ala Thr Ser Ile  
                                 805

<210> 25  
 <211> 35  
 <212> PRT  
 <213> Amino acid

<400> 25

Cys Asn Leu Thr Ile Glu Glu Phe Arg Leu Thr Tyr Leu Asp Tyr Tyr  
 1                      5                      10                      15

Leu Asp Asp Ile Ile Asp Leu Phe Asn Cys Leu Ala Asn Ala Ser Ser  
                                 20                      25                      30

Phe Ser Leu  
35

<210> 26  
<211> 35  
<212> PRT  
<213> Amino acid

<400> 26

Cys Asn Leu Thr Ile Glu Glu Phe Arg Leu Thr Tyr Leu Asp Tyr Tyr  
1 5 10 15

Leu Asp Gly Ile Ile Asp Leu Phe Asn Cys Leu Ala Asn Ala Ser Ser  
20 25 30

Phe Ser Leu  
35

<210> 27  
<211> 35  
<212> PRT  
<213> Amino acid

<400> 27

Cys Asn Leu Thr Ile Glu Glu Phe Arg Leu Thr Tyr Leu Asp Tyr Tyr  
1 5 10 15

Leu Asp Asp Ile Ile Asp Leu Phe Asn Cys Leu Ala Asn Ala Ser Ser  
20 25 30

Phe Ser Leu  
35

<210> 28  
<211> 35  
<212> PRT  
<213> Amino acid

<400> 28

Cys Asn Leu Thr Ile Glu Glu Phe Arg Leu Thr Tyr Leu Asp Tyr Tyr  
1 5 10 15

Leu Asp Asp Ile Ile Asp Leu Phe Asn Cys Leu Ala Asn Ala Ser Ser  
20 25 30

Phe Ser Leu

35

<210> 29  
<211> 35  
<212> PRT  
<213> Amino acid

&lt;400&gt; 29

Cys Asn Leu Thr Ile Glu Glu Phe Arg Leu Thr Tyr Leu Asp Tyr Tyr  
1 5 10 15

Leu Asp Asp Ile Ile Asp Leu Phe Asn Cys Leu Ala Asn Ala Ser Ser  
20 25 30

Phe Ser Leu  
35

<210> 30  
<211> 35  
<212> PRT  
<213> Amino acid

&lt;400&gt; 30

Cys Asn Leu Thr Ile Glu Glu Phe Arg Leu Ala Tyr Leu Asp Tyr Tyr  
1 5 10 15

Leu Asp Asp Ile Ile Asp Leu Phe Asn Cys Leu Ala Asn Val Ser Ser  
20 25 30

Phe Ser Leu  
35

<210> 31  
<211> 35  
<212> PRT  
<213> Amino acid

&lt;400&gt; 31

Cys Asn Leu Thr Ile Glu Glu Phe Arg Leu Thr Tyr Leu Asp Tyr Tyr  
1 5 10 15

Leu Asp Asp Ile Ile Asp Leu Phe Asn Cys Leu Ala Asn Ala Ser Ser  
20 25 30

Phe Ser Leu  
35

<210> 32  
<211> 35  
<212> PRT  
<213> Amino acid

<400> 32

Cys Asn Leu Thr Ile Glu Glu Phe Arg Leu Thr Tyr Leu Asp Tyr Tyr  
1 5 10 15

Leu Asp Asn Ile Ile Asp Leu Phe Asn Cys Leu Ala Asn Ala Ser Ser  
20 25 30

Phe Ser Leu  
35

<210> 33  
<211> 35  
<212> PRT  
<213> Amino acid

<400> 33

Cys Asn Leu Thr Ile Glu Glu Phe Arg Leu Thr Tyr Leu Asp Tyr Tyr  
1 5 10 15

Leu Asp Asn Ile Ile Asp Leu Phe Asn Cys Leu Ala Asn Ala Ser Ser  
20 25 30

Phe Ser Leu  
35

<210> 34  
<211> 36  
<212> PRT  
<213> Amino acid

<400> 34

His Asn Leu Thr Ile Glu Glu Phe Arg Leu Ala Tyr Ile Asp Asn Tyr  
1 5 10 15

Ser Ser Lys Asp Ser Ile Asp Leu Leu Asn Cys Leu Ala Asp Ile Ser  
20 25 30

Lys Ile Ser Leu  
35

<210> 35  
<211> 35  
<212> PRT



<213> Amino acid

<400> 35

Cys Asn Leu Thr Ile Glu Gln Phe Arg Ile Ala Tyr Leu Asp Lys Phe  
1 5 10 15

Ser Gly Asp Asp Thr Asp Leu Phe Asn Cys Leu Ala Asn Val Ser Val  
20 25 30

Ile Ser Leu  
35

<210> 36  
<211> 35  
<212> PRT  
<213> Amino acid

<400> 36

Cys Asn Leu Ile Ile Glu Lys Phe Arg Ile Ala Tyr Phe Asp Lys Phe  
1 5 10 15

Ser Glu Asp Ala Ile Asp Ser Phe Asn Cys Leu Ala Asn Val Ser Thr  
20 25 30

Ile Ser Leu  
35

<210> 37  
<211> 35  
<212> PRT  
<213> Amino acid

<400> 37

Cys Asn Leu Thr Ile Glu Lys Phe Arg Ile Ala Tyr Phe Asp Ser Phe  
1 5 10 15

Ser Lys Asp Thr Thr Asn Leu Phe Asn Gln Leu Val Asn Ile Ser Ala  
20 25 30

Ile Ser Leu  
35

<210> 38  
<211> 34  
<212> PRT  
<213> Amino acid

<400> 38

Cys Lys Val Thr Ile Glu Glu Phe Arg Phe Thr Tyr Ala Asn Glu Phe  
1 5 10 15

Ser Glu Asp Ile Thr Asp Phe Asp Cys Leu Ala Asn Val Ser Ala Met  
20 25 30

Ser Leu

<210> 39  
<211> 34  
<212> PRT  
<213> Amino acid

<400> 39

Cys Asn Val Ser Ile Asp Glu Phe Arg Leu Thr Tyr Ile Asn His Phe  
1 5 10 15

Ser Asp Asp Ile Tyr Asn Leu Asn Cys Leu Ala Asn Ile Ser Ala Met  
20 25 30

Ser Phe

<210> 40  
<211> 34  
<212> PRT  
<213> Amino acid

<400> 40

Cys Asp Val Thr Ile Asp Glu Phe Arg Leu Thr His Thr Asn Asp Phe  
1 5 10 15

Ser Asp Asp Ile Val Lys Phe His Cys Leu Ala Asn Val Ser Ala Met  
20 25 30

Ser Leu